Chapter 4

ENVIRONMENTAL EFFECTS

Chapter 4: Environmental Effects

4.1 Introduction

Chapter 4, "Environmental Effects," describes the environmental effects that would occur under the implementation of each alternative. Site specific effects will be described in the environmental documentation for future projects. This section describes the effects of the alternatives described in Section 2.2.

This chapter is organized by the same resource categories used to describe the Affected Environment in Chapter 3.

4.2 Socioeconomic

The location and quality of recreational opportunities and the amount and type of recreation use within the Molalla River-Table Rock SRMA have moderate effects on local socioeconomic conditions. These effects are primarily focused on the residents and communities closest to the SRMA including Molalla and surrounding unincorporated communities. The effects fall into two major categories: a) the direct economic activity that results from travel and tourism-related activity such as retail purchases b) changes to property values and the desirability of living close to the Molalla River-Table Rock area.

Regardless of alternative, timber management practices on matrix lands and their associated socioeconomic impacts are unaffected and therefore are not analyzed.

Alternative A: Under the No Action Alternative, the Molalla River-Table Rock area would continue to provide a moderate level of tourism and travel-related revenue to the City of Molalla, primarily in the from of purchases of gasoline, food, supplies and services. Visitor use levels and associated consumer would continue on their current trajectory. The recreation area would continue to provide minimal and unknown increases in nearby property values.

Impacts Common to All Action Alternatives

Improved marketing, additional investment in trail and facility development and consistent signage are likely to improve the overall perception of the Molalla River-Table Rock area among local residents as well as out-of-town visitors. None of the action alternatives are likely to influence to a noticeable degree the types of supplies or equipment purchased for use within the planning area. Purchases for supplies including fuel, food and other goods will continue to closely mirror overall visitor use. Increasing overall management presence, regardless of alternative, is likely to make the main recreational corridor less attractive for a variety of illegal uses including dumping, drug production, underage drinking and long-term occupancy.

Property values adjacent to the planning area would continue to be positively impacted by the presence of the recreation area. Changes in management of the planning area may result in small differences, but these are considered to be minor.

No management actions taken within the SRMA are likely to have any impact on population demographics, per capita income, employment or overall economic activity on a community scale.

Impacts Specific to Alternative D: The lack of camping opportunities in this alternative may also lead to a moderate increase in business opportunities for lodging and accommodations near the planning area including RV parks, hotels, motels and other outlets. These opportunities would result from a displacement of overnight users and an increase in the attractiveness of the SRMA for day use recreation.

Cumulative Impacts: No past, present or reasonably foreseeable actions are likely to result in a measurable cumulative effect once combined with any of the action alternatives. Foreseeable actions include population increases within the socioeconomic analysis area and a continuation of current growth patterns. These developments, like overall socioeconomic conditions will not be affected to a measurable degree by management actions taken within the planning area.

4.3 Recreation

Recreation use is defined by the type of opportunities offered as well as the physical, social and administrative settings in which recreation activity takes place. The degree to which a particular alternative would benefit or adversely affect a visitor's outdoor recreation experience depends on the management actions involved.

In order to analyze the effects each alternative might have on these recreation uses and the recreation setting, all available statistical and objective information including traffic patterns, visitor use data and survey results were combined with field observation. Other relevant information includes consensus regarding regional recreation trends as outlined in documents such as the Statewide Comprehensive Outdoor Recreation Plan.

Using these information sources, analysis of the potential effects on recreation is based on professional judgment. How effectively each action is implemented, the timing and order of these actions and several other factors including shifting activity preferences have a direct influence on recreation trends within the planning area.

Impacts to the recreation area are described below in terms of the recreation setting. The recreation setting is made up of three primary components:

- The ***Physical Setting*** describes the type and location of facilities and transportation routes (roads, trails and pullouts) available to the visitor, as well as the visibility of recreation-related impacts.

- The ***Social Setting*** is defined by the number and type of other visitors that are likely to be encountered during a visit to the SRMA, their proximity to one another and the potential for competing or complimentary recreation.

- The ***Administrative Setting*** within the Molalla River-Table Rock is determined by the presence of agency personnel, the number of rules in place for visitors and the amount and type of regulatory signage.

General Assumptions

Overall recreation demand is likely to increase at a rate similar to population growth. The overall timing of use (heavy weekend traffic and busy summer weekends) will continue. BLM's management capacity including fiscal resources and personnel is expected to remain at a level similar to the current situation. General land use patterns near and adjacent to planning will continue. As changes are implemented, the public will become gradually aware of new or different recreation opportunities within the SRMA.

Alternative A (No Action)

Impacts to the Recreation Setting

The No Action alternative will result in a continuation of current trends regarding the recreation setting as described section 3.4.

The ***physical setting*** will be characterized primarily by paved S. Molalla Forest Rd, graveled pullouts, vehicle barriers utilizing boulders, and a low level of visible recreation infrastructure. Recreation-related impacts will continue to grow and remain highly visible at dispersed, designated campsites and popular river access points. These impacts will continue to increase in size and visibility as sites experience increased and sustained use. Capacity at day use and campsite locations will continue to be determined by the size of pre-existing roadside pullouts rather than the quantity or quality of recreation opportunities available at that site. As signs of recreation-related impacts become apparent at individual locations, the sites will be evaluated for closure and rehabilitation without a long-term plan.

The ***social setting*** will continue to feature large group sizes and visitors from similar socioeconomic backgrounds. Roughly half of visitor groups will include individuals under 16. Recreation use will be concentrated on weekends during the May through September high use period. The largest crowds will be encountered during these periods. Perceptions of crowding and user conflict will remain relatively low.

The ***administrative setting*** will be characterized by the regular presence of BLM personnel and volunteers during the high use recreation season, as described in section 3.4. Law enforcement presence will continue, but at an undetermined level based on available funding and resources. Managerial controls will come mostly in the form of signage at individual sites outlining prohibited activities.

Impacts to Visitor Use and Behavior

Visitor use and behavior trends will continue, as outlined in EA section 3.4. Visitor characteristics, preferences and activity choices will continue on their current trajectory.

Patterns of use within the Molalla River Trail System will continue. Equestrians will remain the dominant trail user group, with moderate rates of mountain biking use and very low rates of hiking use. Trail conditions will continue to be unreliable resulting in the potential for subpar visitor experience.

Impacts to Overnight Use

Use of dispersed, designated campsites will continue and remain one of the most popular recreation activities within the planning area. During several high use weekends each year, demand for camping will exceed available sites. Current conditions on group size and length of stay will continue.

IMPACTS COMMON TO ALL ACTION ALTERNATIVES

Impacts to the Recreation Setting

All aspects of the recreation setting (including physical, social and administrative) will be altered to some degree under each alternative. Primary changes will include modified parking areas, facilities and trails; increased management controls and the visibility of regulations; greater proximity to other users especially for overnight use and developed day use.

These setting changes affect the type and distribution of recreation opportunities available within the planning area, the levels and patterns of visitor use and the quality recreational experiences desired by the visiting public. Management actions which improve opportunities for visitors seeking one form of recreation (i.e. dispersed camping) may diminish opportunities for visitors seeking other forms (i.e. developed, facility-dependent camping). Similarly, finite management resources spent enhancing one opportunity will not be available to enhance another.

The ***physical setting*** within the planning area will be altered on a site-specific level as individual campsites, day use locations and trailheads are closed, developed or modified to some other degree. In general, the physical setting will become more managed and defined for the visitor. The overall experience of travelling along the river will shift towards the feeling of moving from one defined location to the next.

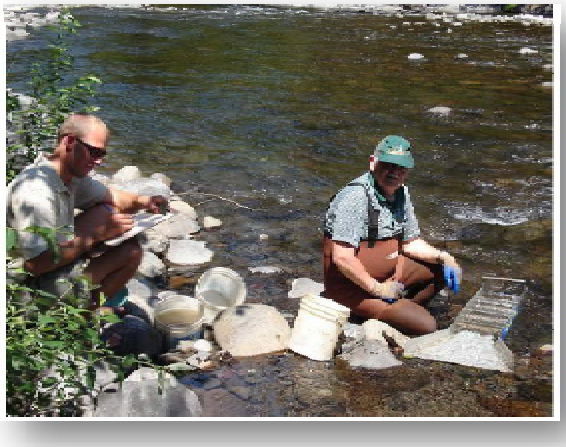
The majority of sites within the busiest portion of the recreation area (from Glen Avon Bridge to Turner Bridge) will see some degree of alteration regardless of alternative. This will include an increase in the amount of road surface that is paved and an increase in the number of physical barriers to foot and vehicle traffic. Changes to the physical setting will also result in changes to the carrying capacity for varying uses (day use, overnight use, etc). In developing individual sites for these uses, the action alternatives will set physical capacity by provided defined parking.

The physical setting will also be affected as wayfinding signage throughout the SRMA will change and become more consistent and visible. Proposed riverside restoration under each alternative will increase the amount of native vegetation visible from roadways and day use sites and decrease the number of user-created trails that will be encountered.

The ***social setting*** within the planning area is dictated by overall rate and type of use. Group size and the timing of use (i.e. weekdays vs. weekends) has a large influence on social setting characteristics including crowding and conflict between users. Proximity to other users at certain locations will increase as they are developed for overnight or day use. The overall distribution of visitors is likely to become more concentrated as access is restricted and visitors are steered towards developed locations.

Dumping, audible shooting and vandalism affect the physical and social aspects of the recreation setting. Under all action alternatives, these activities are expected to decrease. Closing individual sites and the seasonal closure of the Pinecrest Rd system will result in fewer locations for these activities to occur.

All action alternatives will change the nature of the ***administrative setting*** through the potential for fees as well as establishing additional rules and protocol for visitors. None of the alternatives is expected to change the level of law enforcement presence, but may change where and when these officers and regular agency personnel are encountered.



Impacts to Visitor Use and Behavior

All management actions within the planning area will result in some change to overall use levels and patterns of visitor use. This will include some displacement of current visitors as certain opportunities are altered or become unavailable. For instance, an opportunity for free overnight camping is the primary draw for a certain segment of visitors. The potential fee for overnight use or the unavailability of camping opportunities will likely cause those visitors to seek opportunities outside the SRMA. This sort of displacement is most likely to occur with overnight camping, and to a lesser extent with recreational shooting.

Changes to the management of day use will impact the distribution of visitors within the SRMA, but is not expected to result in large-scale displacement elsewhere in the region but may result in changes to locations and types of use. Visitors who are seeking less developed settings will likely begin to travel farther up the watershed to find locations where there is less evidence of management and fewer facilities.

A displacement effect to recreational shooters is likely to result from the seasonal closure of the Pinecrest Road system. The displacement is likely to occur both within the SRMA (i.e. recreational shooters may seek out other road systems) and to other viable shooting areas on public and private in the region. A small increase in the use of formal shooting ranges (such as Molalla Rifle Club) may occur. Within the recreation area, the Horse Creek Road system is likely to see increased recreational shooting due to its relative each of access and the availability of remote landings. Shooting areas on other road systems with similar access requirements may develop.

A displacement effect to other uses of public lands including dumping and long-term occupancy may occur. These visitors will likely disperse to less developed and managed setting within the SRMA, as well as private and public lands elsewhere in the region, particularly within rural Clackamas and Marion Counties.

Potential regulatory limitations on recreational mining near developed sites, if established, may affect the location of this use, but not its overall availability within the planning area.

While some displacement is likely to occur, the overall effect of additional investments in facility and trail development is also likely to draw new visitors or increase the rate of visitation for those who already use the recreation area. Quantifying changes is speculative and dependent on the end product of plan implementation. The changes are likely to be characterized by an influx of visitors that are not attracted to the current mix of opportunities offered and/or the recreation setting, but prefer the opportunities that would be made available under this alternative. As a result of this unpredictability, predicting overall visitation levels by alternative is unlikely to be accurate.

Table 14 provides a broad comparison of the effects of each alternative on recreation within the planning area. It summarizes the key impacts to the recreation setting and visitor use by alternative.

Table 14: Summary of Recreation Impacts by Alternative *Summarizes the key impacts to the recreation setting and visitor use by alternative.*				
CATEGORY	**Alternative A (No Action) - Baseline Conditions**	**Alternative B (Proposed Action)**	**Alternative C**	**Alternative D**
Site Development	Development at few sites, recreation area characterized by primitive, widely dispersed opportunities	Development at the most number of individual sites, but lowest overall change to the character of the recreation area	Development at the fewest number of sites, with moderate overall change to the character of the recreation area	Development at moderate number of sites, but high overall change to the character of the recreation area
River Access	Few access restrictions to riverside areas	Moderate level of access restriction within main recreation corridor	Moderate to high level of access restriction within main recreation corridor	Highest level of access restriction within main recreation corridor
Visitor Displacement	No levels of visitor displacement, continuation of visitor use trends	Least expected visitor displacement, up to 15% of visitor base	Moderate expected visitor displacement, up to 25% of visitor base	Highest expected visitor displacement, up to 50% of visitor base
New Visitors	No potential for visitors drawn to new opportunities	Potential for new visitors drawn to relatively primitive but managed overnight settings	Potential for new visitors drawn to highly developed and managed overnight settings	Potential for new visitors drawn to highly developed day use and increased levels of management
Number of Overnight Sites and Overnight Vehicle Capacity	Limited number of overnight sites that are capable of supporting many vehicles	Increased camping sites available, but slightly lower overall vehicle capacity with opportunities to expand	Increased camping sites available and higher overall vehicle capacity	No overnight sites or overnight visitor capacity
Proximity to Other Overnight Users	Low proximity to other overnight users	Moderate proximity to other overnight users	High proximity to other overnight users	No overnight users within the planning area
Site Restoration	No large-scale restoration, implemented on a case-by-case basis	Restoration implemented at 20 locations	Restoration implemented at 25 locations	Restoration implemented at 35 locations

Table 14: Summary of Recreation Impacts by Alternative *Summarizes the key impacts to the recreation setting and visitor use by alternative.*				
CATEGORY	**Alternative A (No Action) - Baseline Conditions**	**Alternative B (Proposed Action)**	**Alternative C**	**Alternative D**
Trail System	Continued maintenance of Shared Use Trail system with no opportunities for riverside trail use	Highest change to trail use as emphasis areas are created. unsustainable segments are re-routed and additions to the trail system are constructed	Lowest change to trail use as regular maintenance continues and a short trail is constructed adjacent to central campground	Low to moderate change to trail use as unsustainable trail segments are re-routed and new riverside trails are constructed outside of existing trail system

Alternative B (Proposed Action): Of the action alternatives, the proposed action is likely to result in the fewest changes to the overall character of the recreation area, but will include development at the most number of sites. While the management changes and development contained in this alternative are likely to shift the visitor base somewhat, it will do so to a lesser degree than Alternatives C and D. This alternative is likely to have the greatest impact on trail use due to the establishment of emphasis areas and new trail construction.

Impacts to the Recreation Setting (Alternative B)

Of the action alternatives, this alternative provides the most instances of notable site-specific changes to the *physical setting* including three new campground locations, changes to trailhead access and development of day use locations. These changes will result in an increase in the overall presence of infrastructure throughout the recreation area. The physical setting for overnight use will be changed by additional development at the three identified locations, resulting in less noticeable recreation-related impacts and more noticeable facilities, barriers and signage. The location of restrooms and trash facilities will create control points for visitors as they travel through the recreation area. Closure and rehabilitation of up to 20 sites will result in more visible native vegetation, but at a level lower than Alternatives C and D. These sites will include closed campsites, rocked roadways and day use locations experiencing resource impacts.

The *social setting* will be altered somewhat by day use development, but to a greater extent by the changes to overnight recreation. Proposed overnight developments are intended to preserve some measure of solitude and privacy that is valued by current overnight users. However, centralized parking and the location of campsites will result in more frequent interactions between campers and greater potential for user conflict, but at a level lower than Alternative C. The social setting within the Trail System will be altered as emphasis areas are established and interactions between user types become less frequent.

Primary changes to *the administrative setting* will include the potential for overnight fees, the presence of coordinated signage and rules and an increase in trash and restroom facilities. Levels of managerial presence are likely to remain similar to the current level, but the presence of controls such as signage and physical barriers will increase at a level similar to Alternative C but lower than Alternative D. Visitors to developed campgrounds and developed day use areas will be more likely to encounter BLM agency personnel as recreation use becomes more concentrated. No BLM personnel or volunteer host will be stationed within the recreation area under this alternative.

Impacts to Visitor Use and Behavior (Alternative B)

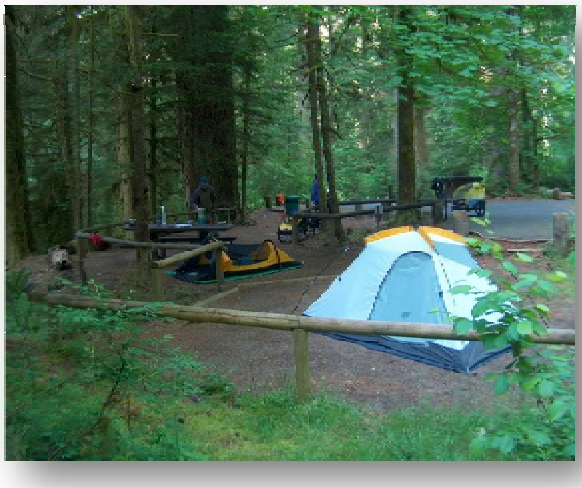
Of the action alternatives, the proposed action is likely to result in the fewest changes to the current make-up of the visitor base. Given that opportunities provided under this alternative most closely resemble those available now in type and character, it is anticipated that more of the current visitor base would continue using the recreation area than under Alternatives C or D. However, charging fees for overnight use and changing the recreation setting described above will result in some level of user displacement. It is anticipated that up to 15% of the current visitors, especially those seeking free, dispersed camping opportunities, may seek these opportunities elsewhere in the region.

Proposed changes to day use recreation are not expected to result in visitor displacement to areas outside the SRMA under this alternative. Developed day use sites will be primitive in character and resemble current day use opportunities.

Changes to the trail system under this alternative will likely result in higher overall trail system use and greater separation of users as the emphasis areas are put in place. Increased off-season use for equestrians due to more year-round opportunities and increased mountain biking use as bike-specific trails are developed are also likely to occur. Encounters between different user types will becomes less frequent, as different trailheads are utilized. Equestrians are expected to remain the dominant user group by overall participation.

Re-routes to unsustainable segments and other changes will likely improve the overall experience as trail conditions improve and open the possibility for shorter seasonal closures. Trail conditions will become more predictable as muddy and problematic portions of the system are re-routed. Development of emphasis areas and user-specific trails for equestrians and mountain bikers will result in a greater separation of these user groups.

Opportunities for whitewater boaters will see a moderate improvement under this alternative as a river access point at Old Bridge is identified and river-related visitor information is distributed. These improvements may result in a moderate increase in whitewater boating use, especially among users currently unfamiliar with the opportunities available within the SRMA. Since this site is currently a campsite, its designation would result in a higher degree of reliability for access and improved likelihood of boaters beginning their trip at that location.



Impacts to Overnight Use (Alternative B)

Developing the types of overnight facilities described under this alternative is likely to reduce group size and shorten average length of stay. Under the current situation, these two attributes are heavily influenced by the availability of isolated camping locations with large turnouts capable of supporting up to 8 vehicles. Campgrounds under Alternative B will provide between 2 and 3 parking spaces for each site, leading to a direct reduction in average group size. Average length of stay is expected to decrease from its current level of 4.25 nights due to the reduced likelihood of stays approaching the 14-day stay limit.

The overnight recreation experience will become more structured with the implementation of camping rules and regulations. Stricter requirements will be established for site occupancy and timing of registration, potential fee payment, and higher interaction with other visitors.

Capacity for overnight use will decrease in terms of overall number of visitors, but will increase for the number of sites available.

Fifty (50) percent more sites will be provided under this alternative, but overall capacity defined by available vehicle spaces will decrease by 18%. Construction of the identified potential campground at Macbeth would result in a 100% increase in sites available from current levels and a small increase in overall vehicle capacity.

Fewer sites capable of supporting RV use and more high quality tent sites will be available under this alternative, resulting in some level of visitor displacement. Sites for large RV's (those above 30') will be unavailable. The availability of RV's under 24' will be reduced from 16 to approximately 8. These trends in site availability will likely result in additional tent camping by users currently utilizing RV's, new users being attracted to the planning area because of the tent camping opportunities, and the displacement of some RV-based camping to locations elsewhere in the region.

The potential to charge a fee at proposed campsites, combined with the presence of nearby campers, is likely to have a direct effect on overnight visitor behavior. Developing appropriate site amenities and improved trail infrastructure and river access will likely result in beneficial site conditions. These effects include a reduction in campsite impacts from vegetation trampling and tree damage, and an increase the use of restroom and trash facilities.

Alternative C*:* Of the action alternatives, this alternative is likely to result in a moderate level of change to the overall recreation setting, primarily in regards to overnight use. This alternative will likely change the visitor base more than Alternative B but to a lower degree than Alternative D. Trail use and the mix of recreation activities provided will remain similar to the current situation.

Impacts to the Recreation Setting (Alternative C)

Of the action alternatives, this alternative provides the lowest level of change to the physical setting, but higher level of changes to the social and administrative settings, especially for overnight recreation.

The *physical setting* for overnight use will be changed by closures of existing campsites and day use locations, as well as new development at a single developed day use area. This will result in less noticeable recreation-related impacts and more noticeable facilities, barriers and signage. Closure and rehabilitation of up to 25 sites will result in more visible native vegetation and fewer disturbed sites, at a level higher than Alternative B but lower than Alternative D.

Social setting characteristics will remain similar for day use opportunities, but will see large changes for overnight use. Much greater proximity to other users and the concentrated mix of different overnight user types (RV's, tent camping, etc) will likely result in higher instances of user conflict. Perceptions of crowding are likely to see a moderate and measurable increase.

Key changes to the *administrative setting* will include the potential for overnight fees and the presence of coordinated signage and rules. Levels of managerial presence will increase notably through the presence of a volunteer host stationed within the recreation corridor at the central campground facility, creating a focal point for visitor contact. Outside of the campground, the presence of controls such as signage and physical barriers will increase at a level similar to Alternative B but lower than Alternative D.

Impacts to Visitor Use and Behavior (Alternative C)

Large-scale changes to overnight opportunities will likely result in a noticeable level of user displacement among overnight users. The mix of increased proximity to other campers, potential for overnight fees and the increased atmosphere of regulation and oversight may not meet desired experience characteristics for many current overnight users of the recreation area. It is anticipated that up to 25% of the current visitors, especially those seeking primitive, dispersed camping, may seek opportunities elsewhere in the region.

Proposed changes to day use recreation are not expected to result in visitor displacement to areas outside the SRMA under this alternative. Developed day use sites will be primitive in character and resemble current day use opportunities. Many of the existing dispersed sites will remain open.

Minimal changes to the trail system and trailhead access under this alternative will result in few if any measurable changes to trail-based recreation. Current rates of use and make-up of users will likely continue within the Shared Use System. Trail conditions will continue to be unreliable and singletrack closure periods may have to be adjusted over time. Development of a trail adjacent to the central campground will introduce a trail hiking component to overnight use that is not currently provided.

Impacts to Overnight Use (Alternative C)

Alternative C will result in a high level of change to the overnight opportunities and associated experiences that are offered within the SRMA. Visitors seeking an undeveloped overnight experience will be displaced to a larger extent when compared to Alternative B. As with Alternative B, average group size and length of stay are likely to go down as parking capacity for each site is reduced. Fewer visitors are likely to approach the 14 day stay limit as camping is limited to single centralized facility.

Capacity for overnight use will increase in terms of individual sites available and remain roughly similar in overall vehicle capacity. Total available campsites will increase by roughly 100% as the the central campground is constructed.

A similar number of sites supporting RV use will be available as compared to the No Action Alternative, although the availability for large RV's (over 30') will be limited. These trends in site availability will likely result in additional tent camping by users currently utilizing RV's, new users being attracted to the planning area's new tent camping opportunities, and the displacement of some RV-based camping to locations elsewhere in the region.

The overnight recreation experience will become much more structured under this alternative. Stricter requirements will be established for site occupancy and timing of registration and a fee payment system is likely to be implemented. Direct interaction will occur with BLM volunteers.

The more structured and regulated overnight setting will likely result in improved site conditions. Tree removal, trampling of vegetation and litter are likely to become less frequent.

Alternative D: Of the action alternatives, this alternative is likely to result in the highest of change to the overall recreation setting as overnight use is prohibited and investments in day use are made. This alternative will likely change the visitor base more than all other action alternatives.

Impacts to the Recreation Setting (Alternative D)

The *physical setting* will be most restricted under this alternative and will be changed by closures of existing campsites and day use locations, as well as new development at developed day use area. More sites will be closed and rehabilitated than under Alternatives B and C, resulting in an increase in native vegetation and less noticeable recreation impacts. Within the main recreation corridor from Glen Avon to Turner Bridge, much fewer sites will be available for vehicle access and the sites available for day use will be the substantially developed. Interpretive information will be visible throughout the recreation area from roadways and trails. Closure and rehabilitation of up to 35 sites will result in more visible native vegetation and fewer disturbed sites, at a level higher than all other alternatives. The general visual characteristics within sites will move towards a built environment, while the visual characteristics outside of developed sites will become more natural.

The *social setting* will be substantially changed by the lack of overnight opportunities. Virtually all user interactions will take place during a shorter period during daytime hours. The potential for user conflict at certain locations may increase as use becomes more concentrated and interactions per visit increase.

The *administrative setting* under this alternative would be drastically altered. The constricted window in which the recreation area would be open to use would result in an increased likelihood to encounter law enforcement and agency personnel. Restrictions on overnight use would result in a higher sense of agency management and potential for enforcement action.

Impacts to Visitor Use and Behavior (Alternative D)

Of the action alternative, Alternative D will result in the highest level of change to the current visitor base. Elimination of opportunities for overnight use will displace up to 50% of the visitor base and cause these users to seek out opportunities elsewhere in the region.

As developed day use areas are constructed and use within the main recreation corridor becomes more restricted, it's likely a segment of the current visitor base will seek opportunities elsewhere in the region or by travelling farther within the SRMA to locations with desired setting characteristics and levels of visitor use.

The popularity of certain river-based activities (such as recreational mining or fishing) may increase as sites previously unavailable due to campers become available for access on a reliable basis.

Changes to the trail system including construction and maintenance of a new trail south of Turner Bridge are likely to result in moderate changes to trail use. Armoring portions of the South End trails, like Alternative B, will result in slightly higher off-season use. Re-routing of unsustainable trail segments will improve the overall trail experience, and increase the predictability of trail conditions. The new trail proposed under this alternative from the Quarry Trailhead to Gawley Creek will likely draw new visitors or cause current visitors not utilizing the trails to engage in trail hiking.

Impacts to Overnight Use (D)

The closure of existing campsites and prohibition of overnight use outside Table Rock Wilderness will result in near complete displacement of overnight users. Some level of unauthorized camping may continue in remote locations. Current overnight visitors will be displaced to other recreation areas within the region, including but not limited to county parks included Feyrer Park, the Clackamas and Sandy Rivers, the Mount Hood region and lands managed by the BLM and USFS in the northern Oregon Cascades.

Cumulative Impacts to Recreation (All Action Alternatives)

The region of influence for recreation management actions within the SRMA is Clackamas County. Large-scale changes to other recreation opportunities within this region, combined with the proposed management actions could result in incremental changes to visitor use and behavior. However, these changes are not reasonably foreseeable and predicting their effects in combination with the proposed management actions is not possible at this time.

The combination of past, present and future recreation management actions within the planning area is likely to result in increased recognition of the Molalla River-Table Rock SRMA as destination for a wide range of recreation activities and opportunities. The investment at certain campgrounds, day use areas and certain trail segments is likely to result future maintenance and development action on the part of the BLM, and a greater expectation of management by the public.

Table 15: Impacts to Selected Recreation Opportunities by Alternative

Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Alternative A (No Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
		MODERATE	**LOW**	HIGH
	50+ dispersed, undeveloped river access points with few if any amenities	Balanced mix of developed day use opportunities and dispersed river access	Mostly dispersed day use and river access with minimal opportunities for developed day use	Focus on providing high quality developed day use recreation at selected sites
	No enhancements for picnicking or river access	Two sites moderately developed for day use recreation	One site moderately developed for day use recreation	Up to four sites highly developed for day use recreation
	Dispersed day use sites closed as severe resource concerns develop	Dispersed day use sites without resource concerns or public safety concerns remain open	Most dispersed sites remain available	Most day use sites within main corridor closed and rehabilitated
	No interpretive information is presented	Small-scale interpretation developed	No new interpretive information	Comprehensive interpretation program and improved visitor information
	No fees for day use recreation	No fees for day use recreation	No fees for day use recreation	Potential fees at developed day use sites
		16 developed picnic sites	*8 developed picnic sites*	*32 developed picnic sites*

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Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
Overnight Camping		**MODERATE**	**HIGH**	**HIGH**
	16 dispersed, designated campsites located at large pullouts	Three small, primarily walk-in campgrounds with low site amenities	One central campground with higher site amenities and on-site host	No overnight opportunities outside of Table Rock Wilderness
	Few number of sites, but large overall capacity due to excessive vehicle spaces	Reduced overall vehicle capacity, but increased number of sites with potential for adaptive expansion	Similar overall vehicle capacity, and increased number of sites	No overnight capacity
	4 to 8 vehicle spaces available per site	2 to 3 vehicle spaces available per site	2 to 3 vehicle spaces available per site	No overnight parking spaces
	Continued opportunities for current mix of visitors	Large decrease in sites available for medium and large Recreational Vehicles (RV's)	Small decrease in sites available for medium and large RV's	No sites available for RV camping
	No physical setting restrictions for overnight use	Restricted physical setting for overnight use combining walk-in sites and back-in sites	Restricted, vehicle-based physical setting for overnight use	Access restrictions to camping areas and heavy enforcement
		Decrease in group size and length of stay	Decrease in group size and length of stay	No overnight group size
		Potential for displacement of roughly 30% of current campers based on setting preferences, or 15% of entire visitor base	Potential for displacement of up 50% of current campers based on setting preferences, or 25% of entire visitor base	All overnight visitors displaced to elsewhere in the region, or up to 50% of current visitor base

Table 15: Impacts to Selected Recreation Opportunities by Alternative

Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Alternative A (No Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
Overnight Capacity	*16 total campsites* *160 total users*	*24 total campsites* *150 Total users*	*32 total campsites* *200 overnight users*	*0 total campsites* *0 overnight users*
Trail Hiking	Minimal high-quality hiking opportunities outside Table Rock Wilderness Riverside hiking limited by presence of campsites *0 miles available for riverside hiking*	**MODERATE** Construction of riverside trail between Looney's Gate, developed campgrounds and Hardy Creek TH *Up to 1.5 miles available for riverside hiking*	**MODERATE** Riverside trail constructed south of developed campground *Up to 2 miles available for riverside hiking*	**HIGH** Riverside trail connecting developed day use sites Construction of Turner Bridge-Gawley Creek riverside trail *Up to 4 miles available for riverside hiking*

Table 15: Impacts to Selected Recreation Opportunities by Alternative

Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Alternative A (No Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
Horseback Riding		**HIGH**	**LOW**	**MODERATE**
	Shared Use Trail System with no emphasis areas	Proposal for equestrian emphasis area within South End of existing trail system	No trail user emphasis areas would be created	No trail user emphasis areas would be created
	Large segment of trails in unsustainable condition	Unsustainable trail segments are addressed through re-routing	Unsustainable trail segments are not addressed	Unsustainable trail segments are addressed through re-routing
	Frequent interactions between equestrians and mountain bikers	Greater segmentation of equestrians from other users	Frequent interactions between equestrians and mountain bikers	Frequent interactions between equestrians and mountain bikers
	Occasional crowding and inadequate capacity at Hardy Creek Trailhead	Slight increase to Hardy Creek Trailhead capacity	Slight increase to Hardy Creek Trailhead capacity	Slight increase to Hardy Creek Trailhead capacity
	Year-round use limited to converted forest roads	Expanded off-season trail use as armored trails are made available	Expanded off-season trail use as armored trails are made available	No changes to off-season use
	25 miles within total Shared Use Trail System	*Up to 17 miles available within South End Trails/Equestrian Emphasis Area*	*0 miles within emphasis areas*	*0 miles within emphasis areas*
	0 miles new trail	*3 new miles of trail developed within trail system*	*0 new trails miles constructed within trail system*	*2 to 3 mile Turner Bridge-Crawley Creek connector*
	0 miles armored for year round use	*Up to 3 miles armored for year round use*	*Up to 1.5 miles of trails armored for year round*	*Up to 1.5 miles of trail armored for year round use*

Table 15: Impacts to Selected Recreation Opportunities by Alternative

Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Alternative A (No Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
Mountain Biking		**HIGH**	**LOW**	**MODERATE**
	Shared Use Trail System with no emphasis areas	Proposal for mountain biking emphasis area within North End of existing trail system	No trail user emphasis areas would be created	No trail user emphasis areas would be created
	Frequent interactions between mountain bikers and equestrians	Greater segmentation of mountain bikers from other users	Frequent interactions between equestrians and mountain bikers	Frequent interactions between equestrians and mountain bikers
	Undesirable trail conditions for mountain bikers in some areas	More reliable trail conditions and experiences	Unreliable trail conditions	More reliable trail conditions and experiences
		Americorps Trailhead developed as improved access point	No additional trailhead improvement	No additional trailhead improvement
		Increased recognition of the Molalla River area for mountain biking availability		
	25 miles within total Shared Use Trail System	*Up to 8 miles of trails and converted road within North End Mountain Biking Emphasis Area*	*0 miles of new trails or within emphasis areas*	*2 to 3 mile Turner Bridge-Gawley Creek connector*

Table 15: Impacts to Selected Recreation Opportunities by Alternative

Management actions will result in measurable impacts to visitor opportunity and experience. This table compares the relative impact of each action alternative on various recreation opportunities against baseline conditions. High-Moderate-Low ratings indicate the degree of impact compared to the No Action Alternative.

Recreation Opportunity	Alternative A (No Action) - Baseline Conditions	Alternative B (Proposed Action)	Alternative C	Alternative D
Recreational Shooting	No formal shooting closures, informal shooting prevalent within Pinecrest Road system	**HIGH** Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area	**HIGH** Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area	**HIGH** Seasonal closure of Pinecrest Road System and displacement to elsewhere in the region or within planning area
Whitewater Boating	No designated river put-in locations and little to no visitor information	**MODERATE** Designated river put-in location at current Old Bridge campsite Development of guide for Molalla River boating	**LOW** No designated river put-in location or improved visitor information	**MODERATE** Designated river put-in location at current Old Bridge campsite Development of guide for Molalla River boating
Fishing	Unimproved access with few facilities via roadside pullouts Up to 10 river segments blocked due to the presence of campsites	**MODERATE** Improved river access and facilities at 2 developed day use sites Improved walk-in access to river segments around existing campsites	**LOW** Improved river access and facilities at 1 developed day use sites Improved walk-in access to river segments around existing campsites	**MODERATE** Improved river access and facilities at 4 developed day use sites Improved walk-in access to river segments around existing campsites

4.4 Visual Resources

- Changes to the landscape character are expected to be low and would comply with Visual Resource Management guidelines. Some disturbance to vegetation would be observable after recreation and trail enhancement projects are completed; change would be unnoticeable within five years.

- Changes to the visual character of the planning area proposed under all action alternatives will be in the foreground and middle ground only, and not influence the larger viewshed.

- Beneficial changes to the immediate landscape character are expected to be high with the implementation of restoration activities within the SRMA.

- Activities on private lands, including timber harvest, could potentially impact the viewshed within the Molalla River-Table Rock SRMA.

Alternative A: The visual quality of BLM managed lands in the planning area will not change dramatically under existing regulations and established visual resource management guidelines. However, incremental impacts to the visual resource, primarily form unregulated recreational use would be expected to continue.

Alternative B (Proposed Action): Alternative B includes several proposed activities to control visitor use by providing developed facilities and establishing dedicated trails. The visual quality of BLM managed lands would be improved under this alternative. Increased recreation management in the form of facility development and more regulated management of overnight use would reduce litter and resource damage, thereby improving visual quality. The overall setting of the river corridor would not be dramatically altered under this alternative.

Alternative D: Similar to Alternative C, would result in a moderate improvement to the visual quality of BLM managed lands would be improved under this alternative. Increased recreation management in the form of facility development and more regulated management of overnight use would reduce litter and resource damage, thereby improving visual quality. The overall setting of the river corridor would not be dramatically altered under this alternative.

Alternative D: This alternative would provide for the greatest level of protection and long term enhancement of visual resources within the SRMA. Rehabilitation of approximately 15 of the dispersed overnight sites would lead to a long term benefit to visual quality. The elimination of overnight use within the SRMA would lead to a reduction in impacts to riparian areas surrounding the Molalla River. This change would lead to a less developed setting in between the Molalla River and the Molalla Forest Road

4.5 Cultural Resources

Adverse impacts to cultural resources occur when sites are disrupted due to ground disturbing activities. Cultural resource sites are comprised of layered deposits of cultural materials, much of their value lays in the intact depositional context. When site materials become mixed, damaged, broken or removed the integrity of the cultural site is compromised or destroyed. Cultural resources can be adversely affected by both natural and human activities that impact the soil.

Alternative A, Continuation of Existing Management (No Action Alternative): The No Action Alternative would result in the continuation of existing management practices in the Molalla River-Table Rock planning area. Effects to the cultural resources would likely remain similar to current impacts due to human recreation activity resulting in soil disturbance, erosion and possible artifact collection. Lack of regulated and designated recreation and camping areas allows a larger area for human impact therefore causing a greater chance of cultural resource disturbances.

Impacts Common to All Action Alternatives:
The effects to cultural resources vary little by each alternative. All alternatives include some site and trail development and maintenance as well as restoration activities. The effects to cultural resources will be reduced or eliminated under all alternatives by requiring pre-disturbance cultural resource inventories at each project location and planning the development of facilities or trails to avoid cultural sites or implement other protection measures. Complete avoidance of all cultural resources may not be possible, resulting in some incidental disturbance or loss. Pre-disturbance survey may not account for all cultural resources in the project areas and the ground disturbing activities may unearth previously unidentified cultural resources. Design features for individual projects would have a stipulation to stop work should resources be discovered until a proper evaluation could take place.

All action alternatives would provide beneficial effects to cultural resources by localizing human recreation impacts to areas previously surveyed for cultural resources. Areas with cultural resources would be avoided or protected and other current dispersed recreation sites would be rehabilitated to prevent further impacts. By actively managing specific areas where users can recreate inadvertent cultural resource loss can be avoided.

Site restoration activities projected for currently used sites to be decommissioned can have both adverse and positive effects for cultural resources. Site restoration activities should be evaluated site by site in order to avoid unnecessary disturbance of known cultural sites. Tilling and replanting previously compacted soil can disturb cultural site contexts, thereby reducing their value. Conversely, site restoration activities will provide future protection to cultural resource sites by making them unsuitable for recreation activities and discouraging continued human disturbance.

Cumulative Effects of Action Alternatives:
Cumulative Effects to cultural resources by the proposed recreation development and site restoration activities would be minimal. Planned projects will be composed of one time ground disturbance (i.e. installation of vault restroom) and will ideally avoid known cultural sites. Site restoration activities have the potential to immediately affect the uppermost layers of a cultural site, but would provide long term protection from continued human disturbance. After the development of the facilities and trails, additional effects from maintenance would be minimal.

4.6 Hydrology/Water Quality and Quantity/Soils:

General Assumptions common to All Action Alternatives: Molalla-Pudding Total Maximum Daily Load (TMDL), http://www.deq.state.or.us/WQ/TMDLs/willamette.htm#mp, approved by the EPA in 2008, would be implemented on all public lands within the watershed.

Alternative A Continuation of Existing Management (No Action Alternative): No action would result in the continuation of current conditions and trends in the Molalla watershed as described in the Description of the Affected Resource section of this EA.

Impacts common to All Action Alternatives: All action alternatives would likely result in slight reductions in the risk of soil and water bacterial contamination that may be occurring due to the improper disposal of human waste. All action alternatives would provide additional toilet facilities and would restrict some areas that are currently being used as dispersed recreation sites but lack facilities.

Under all alternatives turbidity and sedimentation would be reduced over the long term by the relocation and improved construction of trails. In addition, bank stability along streams would be improved in under all alternatives by improved infrastructure for accessing recreation sites along channels. Over the short term (<1 year) some additional turbidity may result at construction sites which intersect stream channels and running water. Turbidity is not likely to be visible more than 800 meters downstream from proposed trail, facility, or restoration activities. Project design features included in this EA would reduce the risk of effects to water quality and would be implemented through project specific National Environmental Policy Act (NEPA) planning.

Under all action alternatives light, discontinuous compaction of the surface horizon of the mineral soil would be unlikely to result in any reduction in soil productivity or disturb normal soil processes. Soil bulk density and processes would likely recover to pre-disturbance condition within one year following restoration projects.

Impacts Specific to Alternative B (Proposed Action): Measurable effects to stream flow, channel morphology, water quality, and wetland condition as a result of this proposed action are unlikely. This action is unlikely to alter the current condition of the aquatic system either by affecting its physical integrity, water quality, sediment regime, or in-stream flows.

Ground Disturbing Activities: This alternative is unlikely to alter stream flow or peak flow events because it would not alter the interception or routing of precipitation. Ground disturbing activities (e.g. trail construction, ground based operations associated with vegetation management, road and trail decommissioning) would not occur on steep, unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result. This would prevent any detectable alteration in sediment supply and transport in the affected streams. There could be short term (minutes) localized (no more than 800 meter downstream) increase in stream turbidity during the installation of trail-related stream crossings and use of the crossing after construction.

Increases in turbidity are expected to be small given the type of use that would occur, the size of the stream, the flat approaches, and the rock armoring being installed to reduce the potential for erosion. These increases are expected to be minor due to short-term and localized nature of the increases as described above and would be non-detectable on the watershed scale.

In addition, potential impacts resulting from ground disturbing activities and use would be mitigated with the implementation of Best Management Practices and Project Design Features, are unlikely to contribute measurable amounts of sediment to streams.

The riparian canopy would be retained thereby maintaining riparian microclimate conditions and protecting streams from increases in temperature. The implementation of project design features would protect the condition of wetlands and streams.

In conclusion, none of the alternatives, including the proposed action, is likely to impede and/or prevent attainment of the stream flow and basin hydrology, channel function, or water quality objectives of the ACS. Due to the small scope of any possible actions, no effects to water resources, beneficial uses, or water quantity or municipal/domestic uses are expected.

Cumulative Effects to Water Quality

Cumulative effects of proposed ground disturbing activities would be low due to the nature of these projects, which involve only slight modification of streams and riparian areas. The overall hydrologic patterns in the basin would be unaltered. The increase in turbidity associated with stream crossings would be local in nature and short term and therefore unlikely to contribute cumulatively to turbidity in the Molalla River. Improved disposal of human waste would likely reduce the potential for water quality degradation and human health risks thus improving water quality on a cumulative level.

4.7 Fisheries

***Alternative A - Continuation of Existing Management (No Action Alternative*)**: No action would result in the continuation of current conditions and trends in the Molalla watershed as described in the Affected Environment section of this EA. Current impacts to fish habitat from disturbance of banks and channels from recreation use are low, but would likely slowly increase over time under this alternative.

Impacts Common to All Action Alternatives: Under all alternatives, turbidity and sedimentation and resulting potential negative impacts to spawning and rearing fish would be reduced over the long term by limiting access to river channels to designated areas via designed, well-constructed and surfaced

trails. In addition, restoration of closed sites, roads, and trails and the relocation of and improved construction of the trail system in the Molalla River-Table Rock Recreation Area would reduce sediment delivery to fish habitat over the long term. In the short term (<1 year) construction of trails and other recreation infrastructure across or adjacent to intermittent tributaries may result in slightly elevated turbidity levels and sediment delivery to fish habitat in the Molalla River. Turbidity is not likely to be visible more than 800 meters downstream from a proposed trail, facility, or restoration activities (see Water Quality section; Foltz and Yanosek 2005). Project design features would be implemented in each project area to reduce the risk of sedimentation delivery from construction activities.

Impacts Specific to Alternative B (Proposed Action): Little salmon or steelhead spawning habitat is located adjacent to the proposed developed campgrounds. Riffles and pool tailouts immediately adjacent to the Rabbits Tail and Sleepy Hollow sites are largely comprised of cobble substrates. Thus, development of these sites would not concentrate recreation use in spawning areas. The side channel adjacent to the potential Macbeth Campground has high potential for restoration as rearing habitat for juvenile steelhead and salmon, particularly for refuge during high flows in winter and spring. Limiting access to the side channel via designed or surfaced trails would result in lower sediment impacts to fish habitats adjacent to the Macbeth site compared to that of the No Action alternative. Limiting recreation use of the Looney's Gate site to day use would likely prevent increased sediment delivery to fish habitat from recreationist impacts to stream banks over the long term. The pool tailout at the Looney's Gate site has gravel substrates suitable for steelhead spawning, but no steelhead redds were observed at this site in spring 2010.

This alternative would not change canopy cover of forest stands adjacent to the river. Thus, shade levels and consequently stream temperatures of fish habitats would not be impacted (Johnson 2000).

Cumulative Effects: Implementation of recreation site development and access restrictions and restoration of closed sites, trails, and roads in conjunction with planned and projected fish restoration activities in the Molalla River basin would likely cumulatively improve fisheries habitat in the Molalla River. Regulation of recreation impacts and development of designed infrastructure would limit or reduce sedimentation from ground-disturbing activities associated with recreation uses. Reducing recreation impacts to fisheries habitats by closing sites, trails, and roads would cumulatively add to projected fisheries habitat restoration actions.

4.8 Wildlife

Effects to wildlife species and their habitats include two major kinds of impacts, human disturbance effects and habitat modification. The types of adverse habitat modification that would occur include clearing of vegetation and ground cover and a limited amount of tree/snag felling to build trails, parking areas, camp sites and other facilities. Potential beneficial effects of the action alternatives include rehabilitation and restoration of damaged or altered habitats by re-establishing native vegetation.

Adverse effects due to human disturbance in the Molalla River/Table Rock SRMA are anticipated to be greater than habitat modification effects. Disturbance effects include elevated noise levels over and above ambient conditions due to traffic, shooting, human presence and other activities. Human disturbance causes direct effects to wildlife, such as road kill due to traffic, changes in behaviors and use of habitat. These effects can result in wildlife harassment, wildlife displacement and nest/breeding failures.

Alternative A (No Action)

Under the No Action Alternative, little or no planned habitat modification would occur. This includes adverse habitat modification for recreational development as well as beneficial habitat rehabilitation/restoration. In the short term, human intrusion and related disturbance factors would continue near current levels. However, in the long term, human intrusion is expected to increase. The lack of designated trails, facilities (including toilets), and the increase of recreational uses could result in increased adverse impacts to wildlife due to the unregulated use.

Unauthorized and poorly located user-created trails increase disturbance to wildlife. Dispersed, unregulated day use and camping distribute the human presence throughout the Molalla River Corridor. In the long term, an increase unregulated recreational use may result in greater adverse impacts to wildlife species and habitat than the action alternatives.

The Pinecrest Road would remain open year round. This would result in indefinite human intrusion and disturbance to wildlife species and habitat, including a known spotted owl site, and habitat for goshawks, peregrine falcons and golden eagles; and special habitats in the Molalla Oak Meadows area.

Impacts common to All Action Alternatives (B, C and D):

All of the action alternatives are designed to reduce the amount of human disturbance due to unregulated use, limit impacts on vegetation to existing sites, and restore damaged and altered habitats.

Adverse effects of the action alternatives due to habitat modification are anticipated to be minimal and of small scale. It is anticipated that few trees would need to be felled for human safety. These trees are expected to be under 15" in diameter, and impacts to wildlife species and habitat would be minimal. Vegetation clearing for trails parking areas, camp sites, and facilities would be minimal. Some CWD on the ground would be moved or disturbed due to the construction of trails, parking areas, and facilities. Day use areas, overnight sites and user created trails no longer needed would be rehabilitated and restored, and native vegetation would be re-established.

The action alternatives would have beneficial effects on spotted owls by closing 18 miles of the Pinecrest Road during the greater breeding season. This would reduce human disturbance to one known spotted owl site. The road closure would also have positive effects of reducing human disturbance to golden eagles, peregrine falcons, goshawks, deer, elk, and a host of species in the Molalla Oak Meadows area. The seasonal closure of Pinecrest Road (April 1 to September 30) is the single greatest beneficial effect to wildlife of the Action Alternatives.

The effects of the various alternatives to migratory birds would be minimal due to the minimal amount of habitat modification such as vegetation clearing and minor amounts of tree falling. There would be positive effects to habitat due to rehabilitation and eventual restoration of closed sites and areas. Disturbance effects to neotropical migratory birds would be similar or less than those that would occur under the No Action Alternative. Effects would be less across the Molalla River Corridor due to the closure of some existing dispersed sites, and more concentrated in the newly developed areas. Disturbance effects would be less overall due to the closure of the Pine Crest Road system.

Each of the action alternatives vary in the relative amount of habitat modification effects, both adverse and beneficial, and disturbance effects. Thus the effects to wildlife and habitat vary by alternative.

The amount of ground disturbance, restoration, human activity, and disturbance of the action alternatives were compared and a description by alternative follows.

Alternative B (Proposed Action)

Under this alternative, the least relative amount of roads, rocked areas, trails and other cleared areas would be restored of the action alternatives, but considerably more than would be restored than under the No Action Alternative. This alternative would focus more human disturbance to just three over night areas and three day use areas. It would result in the least amount of habitat modification because even though more overall acres could be impacted, very little additional clearing or trail construction would be required. Impacted acres would still have forest vegetation, and forest floor habitat would be altered but not destroyed.

Alternative C

Under this alternative, more roads, rocked areas, trails and other cleared areas would be restored than under Alternative B, but slightly less than would be restored under Alternative D.

This alternative would concentrate most of the human disturbance to one overnight area, and two day use areas. It would result in fewer overall acres modified than the other alternatives, but they would be highly developed, with pavement and facilities, thus having higher impacts to habitat per acre. In addition, 1 to 2 miles of new trail would be constructed.

Alternative D

Under this alternative, the most relative amount of roads, rocked areas, trails and other cleared areas would be restored than would occur under the other action alternatives. There would be no overnight camping under this alternative, which would reduce human disturbance to wildlife by reducing human presence at night. Human use would be focused on four day use areas. Most of the development under this alternative would occur at the Central Visitor Portal at Looney's Gate, where parking areas and facilities are estimated to be 8 acres. The parking area on the west side of the road would be constructed which would modify riparian habitat. There are a few large trees which could become hazard trees in the future due to the presence of the new parking area. These trees present no hazard at this time. In addition, 2 to 3 miles of new trail would be constructed. Impacts to lower mobility, ground dwelling species such as amphibians and mollusks would be higher under this alternative.

Cumulative Effects

The cumulative effects of habitat modification planned under the action alternatives is minor and offset by proposed habitat restoration in the SRMA that would result in net benefits to wildlife habitat. The action alternatives are designed to regulate recreation use and are expected to reduce the amount of human disturbance to the Molalla River/Table Rock SRMA, especially the seasonal closure of Pinecrest Road.

4.9 Invasive Non-Native Plants and Botany

General Assumptions

Impacts to native botanical species are likely to include habitat degradation and species displacement resulting from recreational use and the spread of non-native invasive species. These impacts will likely increase accordingly with greater human use even with the absence of any agency-directed management activities.

Under all alternatives it is assumed that an increase in human use and recreational activities within the Molalla River/Table Rock SRMA will increase the probability of new invasive plants being introduced and the spread of existing populations.

Due to the area's steep topography and lack of public access, little to no recreation-related impacts to botanical resources within the potential Molalla Meadows ACEC will occur.

The BLM will continue its work on weed inventories, weed treatments, and public outreach and education and invasive species will continue to be managed and controlled under the authority and direction of BLM manual 9015 - Integrated Weed Management. All action alternatives would result in an integrated invasive species management approach that would be used to identify high priority treatment areas, the likely results of management activities and the most appropriate treatment methods for existing populations.

Impacts common to All Action Alternatives (B, C, D) Restoration strategies and proposed recreational development within the planning area are expected to restore native vegetation in areas impacted by past human use. The seeding of native grasses and planting of native species would be used at restoration sites to improve and restore natural conditions and to reduce the introduction and establishment of non-native invasive plant species.

Proposed recreational development and restoration activities would have no effect on any Threatened or Endangered Species because none have been discovered within the planning area, nor would it contribute to the need to list any Special Status/ Sensitive Species known or suspected to occur in the vicinity of any project area. If any previously undiscovered Special Status/Sensitive Species are discovered within the SMRA appropriate protection would be applied.

Non-Native Invasive Species

To date, impacts to native plant communities from non-native invasive species have been limited to areas of ground disturbance with high light conditions. Within the SMRA, the greatest concentrations of non-native invasive species are found along road rights of way. Recreational activities have not contributed noticeably to the introduction or spread of these species. With continued and increasing levels of recreational activities, it is likely that the introduction of species not currently known from within the SMRA, as well as population spread will occur. Depending on the invasive species, competition from native species and the habitat associated with an infestation, impacts could range from minor to severe. Native plant communities found in natural meadows are likely to be most heavily impacted of all habitat types if new infestations were to occur in these areas.

Regardless of which alternative is chosen, the potential for new invasive non-native species introduction is anticipated to remain the same as recreational use within the SMRA increases. Although each alternative has a different array of impacts, there is no evidence to indicate that unregulated use has contributed significantly to the current abundance of invasive non-native species or their distribution within the SMRA and this trend is anticipated to remain the same under each alternative. Although each alternative may create new suitable habitat for invasive non-native species, these conditions are not anticipated to persist in a favorable condition for extended periods as native vegetation reoccupies areas of ground disturbance.

Botanical Resources

Impacts to botanical resources associated with recreational activities within the SMRA have been limited and concentrated in areas that are heavily visited and used for extended stays. These impacts are typically associated with recreational use along the Molalla River in areas of unregulated camping. Although this impact is minimal on the landscape level, it is very apparent at and near each camp site. Outside of those areas, recreation activity has had fewer negative effects and is less noticeable. Due to the topography associated with the SMRA, any future increase in recreational activity is unlikely to cause measureable impacts to any botanical resource not associated with concentrated human use. When viewed on the landscape level, the impact to native vegetation resulting from unregulated recreational use is estimated at less than 1% of the total native vegetation within the SMRA.

Impacts to Special Status Species (SSS): To date, recreational use has had no impact on the Special Status Species known to exist within the SRMA due to the locations of the SSS sites and this trend would be expected to continue even with an anticipated future increased level of recreational activities. Newly identified SSS sites would be managed when needed to protect the species and associated habitat from human impacts.

Alternative A (No Action): This alternative would result in the continuation of current conditions and trends within the SMRA. Current impacts to botanical species and habitat from disturbance associated with recreational use are low at this time and mostly confined to campsites along the Molalla River. It is anticipated that these impacts would slowly increase over time as campsites expand due to unregulated use resulting from the lack of management actions. If unregulated use continues and increases, and excluding human caused wildfires, it is anticipated that negative impacts to native vegetation will also increase, although the total impact is likely to remain at less than 2% of the total native vegetation within the SMRA.

Impacts Common to Action Alternatives B and C: Areas identified under alternatives B and C for campsite or day use development are currently impacted from past unregulated human use. Impacts associated with the development and use of the regulated campsites and the closing of other unregulated campsites at the identified locations would have a positive influence on the vegetation that currently exist at each site due to focused regulated use and the prohibition on camping outside of designated campsite areas. These prohibited camping areas that have been impacted by past use would be rehabilitated with the planting of native species and through natural processes. As a result, areas currently impacted would return to a more natural condition as native vegetation is protected from unregulated and unauthorized campsite development.

Impacts Specific to Alternative D
This alternative would have the greatest positive effect to the existing vegetation along the Molalla River by allowing it to recover and by preventing future vandalism and degradation associated with long term unregulated camping and campsite expansion. This alternative would also allow for the rehabilitation of the sites with native vegetation which would prevent the establishment of invasive non-native species allowing each site to return to more natural conditions.

4.10 Silviculture

Alternative A (no Action)

Overall stand conditions at current day use and overnight sites are affected moderately by human use and camping, but only in small areas (less than 1 acre per site). Since many of the camp sites are limited in size, damage to any of the vegetation is limited to where people camp, park, or walk to the river. Most camp and day use sites have a few standing live trees with significant damage due to vandalism, including chopping and shooting the boles of the trees. Many of these trees (those still standing) will die over time and create a hazard to visitors in the area. Some trees have been cut (poached) and removed from day use/camp areas. Vegetation disturbance/removal and soil compaction from public use is evident in every site. No action would result in the continuation of these patterns in all day-use and camp sites.

Impacts common to All Action Alternatives: All action alternatives are designed to reduce the amount of disturbance of the vegetation in all day use and camp sites. Any vegetation disturbance would be reduced over the long turn by improving existing sites, and rehabilitating and improving trails, camping and day use areas.

Future management of timber resources will not be impacted with regard to road access; there will be no change in management direction regarding GFMA or LSR land uses. Road access to the "Annie's Cabin Commercial Thinning" will remain intact. Access restrictions to Pincecrest Road should not prevent any future haul or access to public land by those that acquire permission or own lands above the gate, but will limit general public access.

Impacts Specific to Alternative B (Proposed Action)

Under the proposed action, several current day use sites would be closed to the public and rehabilitated, with the potential of reducing vandalism and vegetation disturbance. In each established day use site under the proposed action ground disturbance and any removal of trees would be limited. Affects to the forested areas would be minimal, and reduced in some areas with rehabilitation and redirection of trails, camping areas and parking.

Designated camp sites, including Rabbits tale, Sleepy Hollow, Macbeth and the Pine Creek Bridge site would increase in size, with vegetation disturbance minimized and no planned reduction in canopy cover. It is anticipated less than 10 trees would require removal under this alternative.

Cumulative Effects

Cumulative effects of proposed rehabilitation and construction of new camp sites and day use sites would be minimal. The overall impacts to the forested areas where these sites would be added, expanded, rehabilitated, or removed is slight, and would not affect the overall health of the stands.

4.11 Fire Hazard and Risk /Rural Interface

Human activity within the planning area has the potential to affect fire hazard, primarily through the possibility of ignition. Recreation presents an inherent fire risk in the form of unattended campfires, lit cigarettes and other fire sources. Managing these potential ignition sources is an important component of recreation management within the planning area. The primary impact of each alternative on the possibility of wildfire relates to fire risk, and the type and location of potential ignition sources.

None of the alternatives will result in changes to fuel loading, fire hazard or likely fire behavior on a planning area scale, but may be affected on a localized basis as sites are modified or developed. Patrols by Oregon Department of Forestry personnel and the implementation of seasonal fire restrictions would remain the same regardless of alternative.

Alternative A (No Action): The No Action alternative will result in the most locations open for campfires (16) and as a result, the highest risk of fire through incidental start. The location of these sites between main roads and the river provides a fire break for potential spread. Risk of accidental start due to public use of side roads including Pinecrest, Horse Creek and Copper Creek Road will continue.

Alternative B (Proposed Action): The proposed action would result in an overall decrease in fire risk by limiting open fires to three developed campsite locations. Prohibiting unattended fires and restricting fires to metal rings in clearly defined sites will reduce the potential for accidental spread of fire beyond developed campsites. All campgrounds will be located between S. Molalla Forest Road and the river, further minimizing the threat for accidental spread. Developed picnic areas (with designated BBQ grills) would also be sited in this way to prevent accidental spread. Fuel loading, risk of a fire start and the resistance to control a fire, would all increase at the sites as a result of the proposed action.

Alternative C: Similar to Alternative B, this alternative would result in an overall decrease in fire risk associated with recreation activity. Fires would be limited to designated fire rings within the central overnight campground and developed day use areas with BBQ grills. This represents a sizable reduction in the number and location of potential starts, resulting in a reduced potential for accidental fire. This reduction would be greater than Alternative B, but lower than Alternative D.

Alternative D: Alternative D would result in the largest overall decrease in fire risk. Fires would be limited to BBQ grills within developed day use sites, resulting in a considerable decrease in the overall number and location of potential starts.

Cumulative Effects: The combination of past, present and future recreation management actions within the planning area is likely to result in decreased risk of accidental fire within the Molalla River-Table Rock SRMA. The incremental restriction of fire to particular areas and increased management presence is likely to decrease careless fire-related behavior and reduce the probability of accidental starts.

Chapter 5: Conformance and Supplemental Authorities

5.1 Conformance with Land Use Plan, Statutes, Regulations, and other Plans

Management actions identified in this plan will be designed to conform to the following documents, which direct and provide the legal framework for management of BLM lands within the Salem District:

- *Salem District Record of Decision and Resource Management Plan,* May 1995 (RMP): The RMP has been reviewed, and it has been determined that the management actions described in this Recreation Area Management Plan will be designed to conform to the land use plan terms and conditions (e.g. complies with management goals, objectives, direction, standards and guidelines) as required by 43 CFR 1610.5 (BLM Handbook H1790-1). In particular, this plan conforms the RMP's direction to:
  - To manage scenic, natural and cultural resources to enhance visitor recreation experiences and satisfy public land users" *pg 41*
  - Support locally sponsored tourism initiatives and community economic strategies" *pg 41*
- *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, April 1994 (the Northwest Forest Plan, or NWFP).
- *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines,* January 2001.

The analysis in this EA supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). The RMP/FEIS includes the analysis from the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, February 1994 (NWFP/FSEIS). The RMP/FEIS is amended by the *Final Supplemental Environmental Impact Statement for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, November 2000.

5.1.1 Supplemental Authorities Considered

The proposed project does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment [40 CFR 1508.27(b) (10)]. Table 16 reviews how the proposed project affect the elements of the environment described in 40 CFR 1508.27(b) and the project's compliance with additional authorities described in BLM Handbook H-1790-1: p. 137.

Table 16: Effects on Elements of the Environment and Compliance with Relevant Authorities	
Element of the Environment /Authority	**Compliance with Authority / Effects**
Aquatic Conservation Strategy	In compliance with PCFFA IV (Civ. No. 04-1299RSM), the proposed action complies with the Aquatic Conservation Strategy described in the Northwest Forest Plan and RMP. This project also complies with the PCFFA II (265 F.3d 1028 (9th Cir. 2001)) by analyzing the site scale effects on the Aquatic Conservation Strategy. EA sections 3.7, 3.8, 3.11 and 4.7, 4.8 and 4.11 show how the proposed recreation management actions meet the Aquatic Conservation Strategy in the context of the PCFFA cases.
Air Quality (Clean Air Act as amended (42 USC 7401 et seq.)	The proposed action is in compliance with this direction because the proposed action has no detectable influence on local or regional air quality.
Cultural Resources (National Historic Preservation Act, as amended (16 USC 470) [40 CFR 1508.27(b)(3)], [40 CFR 1508.27(b)(8)]	The proposed action is in compliance with this direction and the project would have no effect on this element because cultural resource inventories of the affected area would precede management actions that include any ground disturbing activities that could potentially damage cultural resources.
Ecologically critical areas [40 CFR 1508.27(b)(3)]	The proposed action would not result in adverse impacts to the potential Molalla Meadows ACEC, the only ecologically critical area within the planning area.
Energy Policy (Executive Order 13212)	The proposed action is in compliance with this direction because this project would not interfere with the Energy Policy articulated in Executive Order 13212.
Environmental Justice (E.O. 12898, "Environmental Justice" February 11, 1994)	The Proposed Action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.
Fish Habitat, Essential (Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376, January 17, 2002)	The proposed action is in compliance with this direction because recreation management actions would have no adverse effect on essential fish habitat as defined by the authority (EA section 3.8, 4.8)
Farm Lands, Prime [40 CFR 1508.27(b)(3)]	The proposed action would have no effect on this element because no prime farm lands are present on BLM land within the Cascades Resource Area.
Floodplains (E.O. 11988, as amended, Floodplain Management, 5/24/77)	The proposed action is in compliance with this direction because the proposed treatments would not change or affect floodplain function.

Table 16: Effects on Elements of the Environment and Compliance with Relevant Authorities	
Hazardous or Solid Wastes (Resource Conservation and Recovery Act of 1976 (43 USC 6901 et seq.) Comprehensive Environmental Repose Compensation, and Liability Act of 1980, as amended (43 USC 9615)	The proposed action would have no effect on this element because no Hazardous or Solid Waste would be stored or disposed of on BLM lands as a result of the proposed action.
Healthy Forests Restoration Act (Healthy Forests Restoration Act of 2003 (P.L. 108-148)	The proposed action is in compliance with this direction no silvicultural actions are included that could affect forest condition and proposed recreation management actions will reduce overall fire risk (EA Section 3.11, 3.12, 4.11, 4.12)
Migratory Birds (Migratory Bird Act of 1918, as amended (16 USC 703 et seq)	The proposed action is in compliance with this direction because treatments would have no adverse impact on migratory bird habitat (EA section 4.9)
Native American Religious Concerns (American Indian Religious Freedom Act of 1978 (42 USC 1996)	The proposed action is in compliance with this direction because no Native American religious concerns were identified during the scoping period (EA section 1.5).
Wild and Scenic River (Wild and Scenic Rivers Act, as amended (16 USC 1271)	There are no designated wild and scenic river segments within the planning area. The Salem RMP identifies interim protection measures for suitable and eligible WSR segments.
Wilderness (Federal Land Policy and Management Act of 1976 [43 USC 1701 et seq.]; Wilderness Act of 1964 [16 USC 1131 et seq.)	The proposed action is in compliance with this direction by outlining a strategy to protect wilderness character.

5.1.2 Endangered Species Act (ESA) Section 7 Consultation

Section 7 consultation will be conducted on individual projects according to the procedures of the United States Fish and Wildlife Service and the National Marine Fisheries Service.

5.1.3 Cultural Resources - Section 106 Consultation with State Historical Preservation Office:

Consultation with the Oregon State Historic Preservation Office will be conducted on individual projects according to the procedures in the *Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon.*

Finding of No Significant Impact (FONSI)

Based upon review of the Molalla River-Table Rock Recreation Management Plan EA and supporting documents, I have determined that the proposed recreation management actions are not major federal actions and would not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement is not needed. This finding is based on the following discussion:

Context [40 CFR 1508.27(a)]***:*** Potential effects resulting from the implementation of the proposed recreation management actions have been analyzed within the context of the planning area boundaries and the upper Molalla River, a 5th field watershed. Management actions identified under the proposed management plan would directly affect less than 0.5% of this 129,299 acre watershed.

Intensity refers to severity of impact [40 CFR 1508.27(b)]. The following text shows how that the proposed project would not have significant impacts with regard to ten considerations for evaluating intensity, as described in 40 CFR 1508.27(b).

1. *[40 CFR 1508.27(b) (1)] – Impacts that may be both beneficial and adverse:* The effects of proposed recreation management actions are unlikely to have significant (beneficial and adverse) impacts *(EA Chapter 4)* for the following reasons:
    - Project design features described in EA section 2.4 would reduce the risk of effects to affected resources to be within RMP standards and guidelines and to be within the effects described in the RMP/EIS.
    - *Socioeconomic* (*EA section 3.2, 4.2):* The proposed recreation management actions are compatible with existing land uses and comply with existing local and regional civic and economic initiatives. The overall effect of these actions on economic activity is minor and likely to be beneficial in nature.
    - *Recreation (EA section 3.4, 4.3):* Recreation activities and facilities provided under the proposed recreation management actions are similar to those offered elsewhere in the region, including those on BLM-administered land. These actions are unlikely to result in a large-scale displacement of visitors across a variety of activities. Beneficial impacts to the recreation setting and visitor experience are likely to occur.
    - *Visual Resources (EA section 3.5, 4.4):* Beneficial effects to visual resources include the closure of disturbed sites and revegetation with natural species.
    - *Cultural Resources (EA Section 3.6, 4.5):* Nearly all impacts to cultural resources would be reduced or eliminated through the practice of pre-disturbance surveys and use of avoidance and protection measures.
    - *Hydrology/Water Quality (EA Section 3.7, 4.6):* Projects are unlikely to have a measurable impact on overall water quality including bacteria levels, temperature and turbidity. The actions are likely to have any overall beneficial impact on water quality by increasing facilities for sanitation and minimizing riverbank erosion.
    - *Fisheries (EA Section 3.8, 4.7)* The proposed recreation management actions will have little to no impact on spawning and rearing habitat for fisheries within the planning area. Decreased sediment delivery and mitigation of riverbank impacts would result through enhancements to river access points.

- *Wildlife* (*EA Section 3.9, 4.8*): Little to no habitat modification will occur as a result of the proposed recreation management actions. Impacts due to wildlife disturbance will be reduced as sensitive areas are closed to public access.
- *Invasive Species-Botanical Resources* (EA section 3.10, 4.9) No substantial additional spread or introduction of non-native invasive species is expected. Impacts to native botanical species will be limited and overall beneficial in nature as sites are rehabilitated and native vegetation is re-established.
- *Silviculture (EA Section 3.11, 4.10*) No overall stand conditions or types will be altered as a result of the proposed recreation management actions. Fewer than 10 trees across 15 acres are likely to be removed.
- *Fire Hazard and Risk/Rural Interface (EA Section 3.12, 4.11)* Beneficial impacts to fire risk will result from a reduction in the number and location of potential accidental starts from recreation activity. Fire hazard including fuel loading and fuel type will be unaffected.

2. *[40 CFR 1508.27(b) (2)] - The degree to which the proposed recreation management actions affect public health or safety:* The proposed recreation management actions would not adversely affect public health or safety because these actions are expected to reduce illegal activity and reduce the occurrence of theft, vandalism and vehicular accidents. Site development, access restrictions and provision of facilities will likely improve overall public safety. Levels of law enforcement and administrative personnel will remain unchanged. (*EA section 4.3*).

3. *[40 CFR 1508.27(b) (3)] - Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:* The proposed project would not affect historical or cultural resources because project design features require pre-disturbance surveys would be completed prior to project implementation (*EA Section 4.5*). The Proposed project would not affect parklands, prime farmlands, wild and scenic rivers or ecologically critical areas because these resources are not located within the project area (*EA Chapter 3*).

4. *[40 CFR 1508.27(b) (4)] - The degree to which the effects on the quality of the human environment are likely to be highly controversial:* The proposed recreation management actions include strategies and actions that are similar to actions BLM implements in similar areas without highly controversial effects. These actions are unlikely to be highly controversial based on extensive public scoping, outreach and stakeholder involvement in the planning process.

5. *[40 CFR 1508.27(b) (5)] - The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:* The possible effects of the proposed recreation management actions have been analyzed based on reliable data and professional judgment. These effects are reasonably foreseeable and comparable to effects of recreation management actions elsewhere on BLM-administered land (*EA Chapter 4*).

6. *[40 CFR 1508.27(b) (6)] - The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:* The proposed recreation management actions would not establish a precedent for future actions nor would it represent a decision in principle about a further consideration for the following reasons: 1/ The project is in the scope of proposed activities document in the RMP EIS. 2/ the BLM has experience implementing similar actions in similar areas without setting a precedent for future actions or representing a decision about a further consideration. See # 4, 5, above.

7. *[40 CFR 1508.27(b) (7)] - Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:* The Interdisciplinary Team (IDT) evaluated the project area in context of past, present and reasonably foreseeable actions on each affected resource and determined that the cumulative impact of these actions does not reach the threshold for significance
   - *EA Sections 4.3, 4.4, 4.5, 4.6.,4.7,4.8, 4.9, 4.10, 4.11*

8. *[40 CFR 1508.27(b) (8)] - The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:* The project would not affect these resources because no sites listed within the National Register of Historic Places are present within the planning area and projects near sites eligible for the National Register would require a pre-disturbance survey and appropriate mitigation or protection measures (*EA section 3.6, 4.5*)

9. *[40 CFR 1508.27(b) (9)] - The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973:* The proposed project is not expected to adversely affect ESA listed species or critical habitat for the following reasons:
   - *ESA Wildlife - Northern spotted owl (EA Section 4.8):* Effects to the species are not significant because proposed recreation management actions do not have a measurable impact on habitat conditions or wildlife behavior patterns. ESA Consultation is described in EA section 5.1.2.
   - *ESA Fish – UWR Spring Chinook salmon, UWR steelhead trout, (EA Sections 3.8, 4.7):* Effects to ESA fish are not significant because the proposed recreation management actions will have little to no impact on spawning and rearing habitat within the planning area. ESA Consultation is described in EA section 5.1.2.

10. *[40 CFR 1508.27(b) (10)] - Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment:* The proposed recreation management actions have been designed to follow Federal, State, and local laws (*EA Chapter 1, EA section 5.1.1*).

Approved by: Cindy Enstrom 6/16/2010

Cindy Enstrom, Cascades Resource Area Field Manager Date

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